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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,779	11/20/2003	Muhammad Chishti	018563-004820US	1523

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EXAMINER	
WILSON, JOHN J	

ART UNIT	PAPER NUMBER
3732	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/718,779	CHISHTI ET AL.	
	Examiner	Art Unit	
	John J. Wilson	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-62,80-82,87-120 and 131-134* is/are pending in the application.

4a) Of the above claim(s) *6,7,20,22-26,50,54-56,80-82 and 89* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8-19,21,27-49,51-53,57-62,87,88,90-120,133 and 134* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of claims:

Pending: Claims 1-5, 8-19, 21, 27-49, 51-53, 57-62, 87, 88, 90-120, 133 and 134.

Withdrawn: Claims 6, 7, 20, 22-26, 50, 54-56, 80-82 and 89.

Canceled: Claims 63-79, 83-86, 121-132 and 135.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5, 8-19, 21, 27-49, 51-53, 57-62, 87, 88, 90-120, 133 and 134 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure does not support the new language of generating, at the outset of treatment, a plurality of sets of appliances, and as such, is improper new matter, and the limitation is not enabled by the disclosure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 1-5, 8-19, 21, 27-49, 51-53, 57-62, 87, 88, 90-120, 133 and 134 are rejected under 35 U.S.C. 102(e) as being anticipated by Chishti et al (5975893). Chishti teaches the claimed subject matter as disclosed in the patent.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 8, 9, 13, 21, 27-30, 32-49, 51, 52, 57, 59-62, 87, 88, 90-115, 117-120 and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martz (4793803) in view of Andreiko et al (5454717). Martz teaches generating a plurality of appliances having cavities with different geometries to reposition teeth, column 4, lines 12-15, and column 5, lines 4-12.

Martz teaches using wax setups to generate the positions toward which the teeth will move, and therefore, does not show using a computer implemented method for generating the positions. Andreiko teaches using a computer to receive initial data, Figs 2G-2I, scanning, column 5, lines 17-20 and using the computer to calculate the desired positions to design and manufacture the appliances, column 13, lines 42-53. It would be obvious to one of ordinary skill in the art to modify Martz to include using a computer to compute instead of the wax up models to calculate positions and form appliances as shown by Andreiko in order to make use of known alternative ways of modeling tooth positions for forming more accurate appliances. Martz does not show generating the appliances at the outset of treatment. It would be obvious to one of ordinary skill in the art, in a case where a small number of small moves, to prepare and give the patient the appliances at the outset in order to not require the patient to return to the practitioner. The specific type of scanning used is an obvious matter of choice in known scanning techniques to the skilled artisan. Andreiko teaches several rules used to calculate the positions of the teeth, the specific rules used are an obvious matters of choice in well known orthodontic parameters used for calculating tooth positions to one of ordinary skill in the art. Finding a minimum movement is a well known use of computers when calculating parameters. See user input of Andreiko at column 13, lines 60-65, and different angles at column 17, lines 6-10 of Andreiko. Computer modeling of different alternatives is a well known use of the computer.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martz (4793803) in view of Andreiko et al (5454717) as applied to claim 1 above, and further in view of Lemchen et al (RE 35169). The above combination does not show segmenting the dentition.

Lemchen shows generating a mathematical model of individual teeth, column 12, lines 26-29. It would be obvious to one of ordinary skill in the art to modify the above combination to include segmenting the dentition as shown by Lemchen in order to better show and analyze the data.

Claims 14-19 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martz (4793803) in view of Andreiko et al (5454717) as applied to claim 1 above, and further in view of Doyle (5879158). The above combination does not show using hidden structure for determining tooth positions. Doyle teaches modeling teeth including the use of hidden tooth root structures, Figs. 10-12. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of hidden tooth structures as shown by Doyle in order to better model the teeth.

Claims 31, 58, 116 and 134 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martz (4793803) in view of Andreiko et al (5454717) as applied to claim 1 above, and further in view of Robertson (5340309). The above combination does not show using animation. Robertson teaches animation, column 7, lines 63-69 and column 8, lines 1-28. It would be obvious to one of ordinary skill in the art to modify the above combination to include animation as shown by Robertson in order to better display the teeth.

Terminal Disclaimer

The Terminal Disclaimer filed December 8, 2005 successfully removes the double patenting rejections based on the 5,975,893 patent.

Response to Arguments

Applicant's arguments filed December 8, 2005 have been fully considered but they are not persuasive. Because the references have different inventive entities, co-pendency with the applied reference does not obviate a rejection under 35 U.S.C. 102. Applicant must show that the present claimed invention is by the same inventor. While Martz does not show forming the appliances at the outset of treatment, it is held obvious as indicated above.

Conclusion

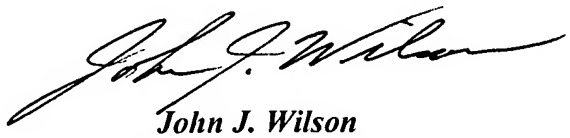
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722). The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver, can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Wilson
Primary Examiner
Art Unit 3732

jjw
January 20, 2006